

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Support for the amendments to claims 24, 28, 32, and 36 is provided in paragraphs [0093] and [0119] of the specification. The amendments were not presented earlier due to the unforeseeability of the remarks presented in the Final Rejection. The amendments have been drafted to overcome the 35 USC 112, second paragraph, rejections applied to claims 24, 28, 32, 36, and 40.

More specifically, the independent claims now recite transmitting, to a plurality of mobile stations, a common control message that restricts the transmission formats that the mobile stations may use. Additionally, this message limits a maximum uplink resource, which is common to the mobile stations, that each of the mobile stations may use for transmissions on the uplink data channel. These features are disclosed in detail in Fig. 8 and at page 7, lines 15-29, of the specification.

As described in the specification, the claimed transmit format combinations (TFCs) relate to different combinations of modulation and coding schemes for respective transport channels, which are to be multiplexed for transmission. Each transport format combination yields an overall transmission rate for the uplink data of all transport channels to be multiplexed. This overall transmission rate is equivalent to the "uplink resource" recited in the independent claims. In typical implementations, the TFC with the highest index also yields the highest transmission rate and, thus, the "maximum uplink resource" the mobile station is allowed to utilize for uplink transmission.

According to the pending claims, a common control message sent to a plurality of mobile stations restricts the transmit format combination subset of each of the mobile stations, such that the maximum transmit format combination that the respective mobile stations may use all yield the same maximum data rate on the uplink channel, i.e., the same maximum radio resource each of the mobile stations is allowed to utilize for uplink transmissions, respectively. Furthermore, the independent claims now recite that the common control message restricts the transmit format combination subset of each of the plurality of mobile stations to thereby set a maximum uplink resource, which is common to the plurality of mobile stations, that the mobile stations are allowed to utilize for uplink transmissions on the uplink data channel.

Claims 24-31 and 40 were rejected, under 35 USC § 103(a), as being unpatentable over Hwang et al. (US 2002/0168945) in view of Padovani et al. (US 7,079,550). Claims 32-39 were rejected, under 35 USC 103(a), as being unpatentable over Hwang. To the extent that these rejections may be deemed applicable to the amended claims, the Applicants respectfully traverse based on the points set forth below.

The independent claims define methods and apparatuses for controlling uplink data transmissions in which a base station transmits a feedback message to a mobile station and the received feedback message triggers a synchronous transmission of a retransmission data packet from the mobile station. The Final Rejection proposes that Hwang discloses synchronous retransmissions via an uplink data channel (see Final Rejection section 4, lines 3-5).

However, Hwang discloses that feedback control information may indicate a delay to be applied to a retransmission time (see Hwang paragraph [0075]). Thus, the entity sending the feedback may control the retransmission timing by indicating a retransmission time delay.

Hence, the retransmissions are sent in an asynchronous manner, by contrast to the meaning of synchronous retransmissions within the context of the Applicants' claims (see Fig. 11 and specification page 11, lines 22-28 and page 12, line 20, through page 13, line 3). Thus, Hwang's retransmissions may be considered scheduled, since the indication of the time delay in the feedback may be considered scheduling information to indicate the resource and timing of the retransmission. The difference between asynchronous (i.e., scheduled) retransmission, such as disclosed by Hwang, and the claimed synchronous retransmission is discussed in the specification on page 11, lines 1-14 and 22-28.

So as to emphasize the synchronous retransmission, the independent claims now recite that the feedback message triggers a synchronous transmission of a retransmission data packet.

As noted above, Hwang does not teach or suggest this subject matter, and Padovani is not cited for supplementing the teachings of Hwang with regard to such subject matter.

Accordingly, the Applicants respectfully submit that Hwang and Padovani, considered individually or in combination, do not render obvious the subject matter defined by independent claims 24, 28, 32, and 36. Therefore, allowance of claims 24, 28, 32, and 36 and all claims dependent therefrom is warranted.

With regard to independent claims 24 and 28, the Final Rejection acknowledges that Hwang does not disclose the claimed subject matter of sending a common rate control message, to a plurality of mobile stations, that restricts the transmission format of each of the mobile stations to a common maximum data rate (see Final Rejection section 4, third paragraph). To overcome this deficiency, the Final Rejection proposes that Padovani discloses this subject matter (see section 4, fourth paragraph).

However, Padovani discloses that a mobile station measures the signal-to-noise-and-interference ratio (C/I) of a base station's downlink and determines a data rate to be utilized by the base station for the downlink (see Padovani col. 20, lines 29-31). Also, the mobile station selects a base station that provides the best signal-to-noise-and-interference ratio and communicates a request for downlink transmission, to the selected base station, that indicates the determined data rate for the downlink (see col. 4, lines 44-61, and col. 20 lines 26-42). In Padovani's disclosure cited by the Final Rejection (i.e., Padovani col. 20, lines 26-42), Padovani discloses how the available data rates within Table 1 (see column 21) are associated with respective C/I measurements.

Thus, Padovani discloses that each of a plurality of mobile stations determines signal-to-noise-and-interference ratios of pilot signals received from plural base stations (see col. 4, lines 46-50). Based on the determined signal-to-noise-and-interference ratios, each mobile station selects a data rate for receiving a downlink transmission from a selected base station and communicates a request, to the selected base station, for downlink transmission at the selected data rate (see col. 4, lines 50-56). Accordingly, Padovani does not disclose that a maximum data rate, which is common to a plurality of mobile stations, is limited by a base station.

By contrast to Padovani's disclosure, claims 24 and 28 recite having a base station send a common rate control message, to a plurality of mobile stations, that restricts the transmission format of each of the mobile stations to a common maximum data rate. Padovani does not disclose this subject matter.

Accordingly, the Applicants respectfully submit that Hwang and Padovani, considered individually or in combination, do not render obvious the subject matter defined by independent

claims 24 and 28 for this independent reason. Therefore, allowance of claims 24 and 28 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

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JEL/DWW/att

James E. Ledbetter
Registration No. 28,732

Attorney Docket No. 007725-06116
Dickinson Wright PLLC
1901 L Street, NW, Suite 800
Washington, DC 20036
Telephone: (202) 659-6960
Facsimile: (202) 659-1559

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